

GOLUBCHIN, I.A.

Protective screen, apron and tube for the F-55 fluorograph.
Vest. rent. i rad. 37 no.1:50-51 Ja-F '62. (MIRA 15:3)
(DIAGNOSIS, FLUOROSCOPIC--EQUIPMENT AND SUPPLIES)

GOLUBCHIN, S.B.

GOLUBCHIN, S.B.

Flap method in supravaginal hysterectomy. Akush. gin., Moskva No. 1:
28-30 Jan-Feb 52. (CIAM 21:4)

1. Docent. 2. Of the Obstetric-Gynecological Clinic (Head--Honored
Worker in Science Prof. Gadzhi-Kasimov), Azerbaydzhan Medical Institute.

GOLUBCHIN, S.B., professor

Microscopic (cytologic) investigation of punctate in ectopic pregnancy. Akush. i gin. no.4:28-31 J1-Ag '54. (MLRA 7:11)

1. Iz kafedry akusherstva i ginekologii Khabarovskogo meditsinskogo instituta.

(PUNCTURES

in ectopic pregn., cytol. aspects of punctates)

(PREGNANCY, ECTOPIC, diagnosis,
cytol. exam. of punctates)

GOLUBCHINA, Mariya Naumovna; ANISIMKIN, I.P., redaktor; AVERKIYeva, T.A.,
tekhnicheskiiy redaktor

[Manual on analysis of carbon isotopes by mass spectrometry]
Rukovodstvo po izotopnomu analizu ugleroda na mass-spektrometre.
Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po geol. i okhrane nedr,
1956. 14 p. (MLRA 10:2)
(Mass spectrometry) (Carbon--Isotopes)

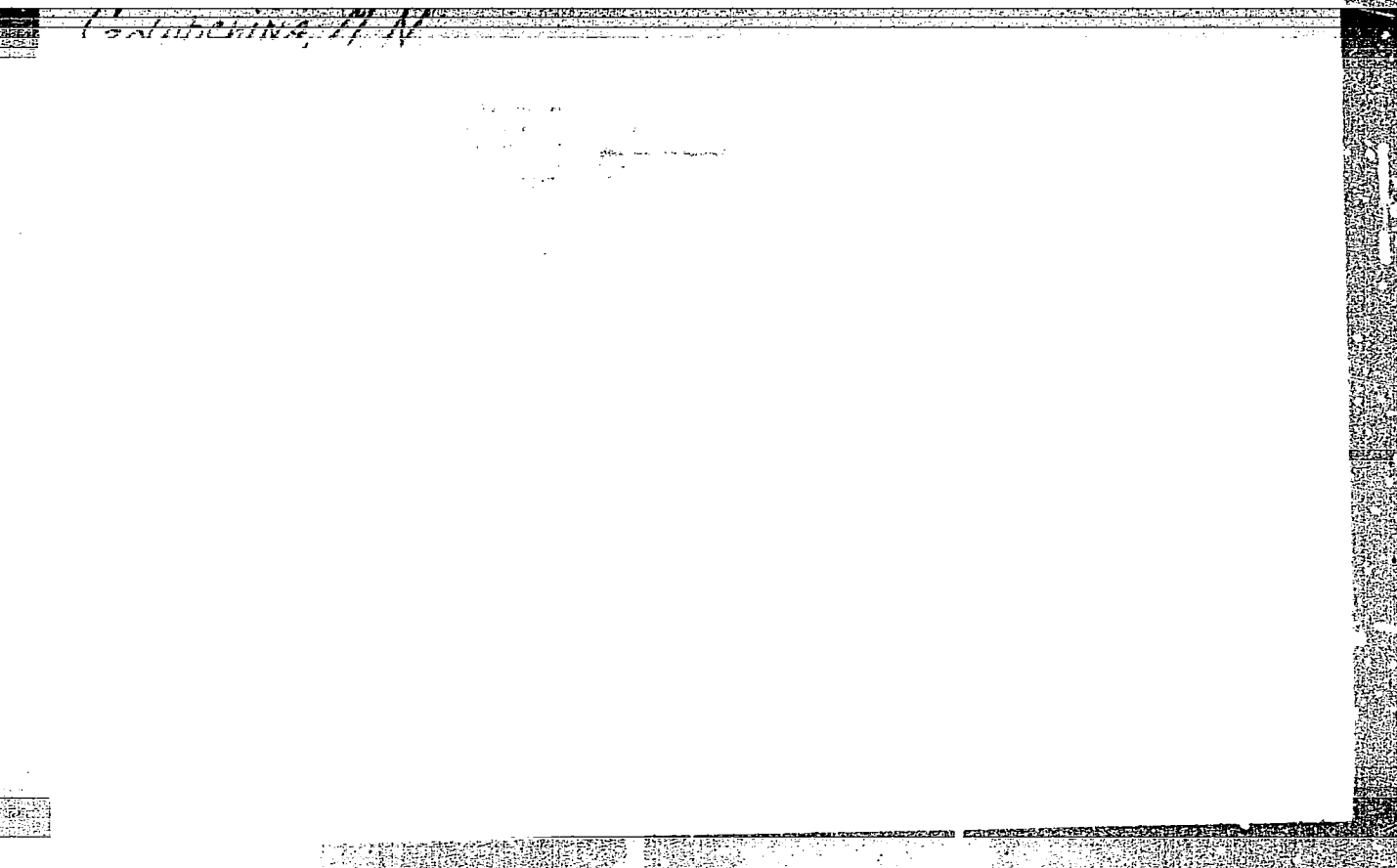
GOLUBCHINA, M. N.

"A Manual for Isotopic Analysis of Carbon in a Mass Spectrometer," (Fukovodstvo po Izotopnomu Analizu Uglroda na Mass-Spektrometre), Moscow: Gosgeoltekhizdat (Government Scientific Technical Publishing Office), 1957, 16 pp.

within the range 2.459-2.463: the upper limit of deviation

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000515910005-5



APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000515910005-5"

GOLUBCHINA, M.N.; RABINOVICH, A.V.; MURTAZINA, T.M.

Isotopic composition of magmatic rock thallium [with summary in English]. Geokhimiia no.3:191-192 '57. (MLA 10:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologicheskiy institut, Leningrad.

(Thallium--Isotopes) (Spectrometry)

GOLUBCHINA, M.N.

Behavior of zircon and monazite in granites during heating. Geo-
khimiia no.2:184 '60. (MIRA 13:6)
(Zircon) (Monazite) (Lead--Metallurgy)

COLUBCHINA, M.N.; KURTAZINA, T.M.; GUSAKOVA, A.N.

Isolation of small quantities of lead from rocks and minerals for
the determination of isotope composition. Inform.sbor. VSEGEI
no.16:113-119 '59. (MIRA 15:3)

(Lead--Isotopes)

GOLUBCHINA, M.N.; GUSAKOVA, A.N.

Separation of small quantities of lead from rocks and minerals by
the method of sublimation. Inform.sbor. VSEGEI no.54:19-26 '62.
(MIRA 17:1)

GOLUBCHINA, M.N.

Determining the absolute age of phosphorite by the lead-isotope method. Inform.sbor. VSEGEI no.54:27-29 '62. (MIRA 17:1)

ZHIDKOV, A.Ya.; MIRKINA, S.L.; GOLUBCHINA, M.N.

Absolute age of alkaline and nepheline syenites of the North
Baikal Elevation. Dokl.AN SSSR 149 no.1:152-155 Mr '63.
(MIRA 16:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologicheskii
institut. Predstavleno akademikom D.I.Shcherbakovym.
(Baikal Lake region—Syenite)

RABINOVICH, A.V.; GOLUBCHINA, M.N.; MURTAZINA, T.M. [deceased]

isotope composition of the lead of intrusive rocks in various metallogenic zones of Central Asia. Geokhimiia no.5:519-528 My '65.

(MIRA 18:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologicheskii institut, Leningrad.

BOCHAROVA, N.N., GOLUBCHINA, R. _____

Conference on the production of food acids. Vest. LGU 16 no.3:152-
153 '61.

(Acids, Organic)

(MIRA 14:2)

GOLUBCHINA, R.N.

CHASTUKHIN, V.Ya.; GONCHAROVA, L.A.; GOLUBCHINA, R.N.

Mass cultures of mycelial fungi for feed protein production [with summary in English]. Mikrobiologiya, 26 no.3:360-366 My-Je '57.

(MIRA 10:10)

1. Leningradskiy tekhnologicheskij institut pishchevoy promyshlennosti.

(FUNGI IN AGRICULTURE)

(FEEDING AND FEEDING STUFFS)

(DISTILLING INDUSTRIES--BY-PRODUCTS)

GOLUBCHINA, R.N.

Inoculum in submerged cultivation of *Aspergillus oryzae* for
obtaining fodder protein. Vest. LGU 17 no.9:35-42 '62. (MIRA 15:5)
(*ASPERGILLUS ORYZAE*)
(PROTEINS)

GOLUBCOV, V.

TECHNOLOGY

Periodical: PALVIA Vol. 38, no 8, Aug. 1958

GOLUBCOV, V. Power-technical testing equipment in the USSR. p 273

Monthly List of East European Accession (EEAI) LC, Vol. 8, no. 3
March 1959 Unclass.

L 02326-67

ACC NR: AR6023338 (A,N) SOURCE CODE: UR/0299/66/000/003/M032/M032

AUTHOR: Pankov, Ye. Ya.; Golubenko, A. L.

TITLE: Morphological changes in a homotransplant with deep freezing

SOURCE: Ref zh. Biol, Part II, Abs. 3M196

REF SOURCE: Sb. Aktual'n. vopr. kliniki i lecheniya ortopedo-travmatol. bol'nykh. Kiyev, Zdorov'ya, 1965, 270-273

TOPIC TAGS: tissue transplant, bone, freezing, morphology

ABSTRACT: Bone from cadavers frozen at -70° and stored at -30° was investigated histomorphologically in 3 to 7 days, 2 to 4 weeks, and in 2 to 7 mos. In 3 mos the bone surface became rough, and in 7 mos the bone acquired a brownish color, cracks appeared, and the odor changed. In 3 mos the osteocytes started to lose their staining properties in the area of the intercalary laminae; then the empty matrices of the osteocytes formed diffuse fields with small groups of staining osteocytes remaining intact near young osteons and the subperiosteal zone. In 3 to 4 weeks nonuniform staining was observed in various osteons, the intercalary zones, and periosteal areas; this gave the preparations a spotty appearance and was most clearly seen in 3 to 4 mos. Staining for

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UDC: 577.99

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ACC NR: AR6023338

0.
sulfated mucopolysaccharides revealed their absence in a free state at all periods of bone storage; they were clearly determined only in the cartilage. Endosteal and periosteal cells preserved their uniform staining capacity for a prolonged period and did not undergo deformation. In 5 to 7 mos in place of the endosteal cells, homogenous cell shadows with poorly differentiated nuclei were found; the periosteal cells stained more clearly. N. S. [Translation of abstract].

SUB CODE: 06

rs
Card 2/2

KOVBA, L.M.; GOLUBENKO, A.N.

Lithium (V) uranate, LiUO_3 . Zhur. strukt. khim. 1 no.3:390-392
S-O '60. (MIRA 14:1)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova.
(Lithium uranate)

GOLUBENKO, A.N.; REZUKHINA, T.N. (Moscow)

Thermodynamic properties of calcium titanate from electro-chemical measurements at elevated temperatures. Zhur. fiz. khim. 38 no.12:2920-2923 D '64.

(MIRA 18:2)

1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova, Khimicheskiy fakul'tet.

GOLUBENKO, F.

The aim of our life. Sov. profsoiuzy no.17:7 S '61.

(MIRA 14:8)

1. Predsedatel' postroykoma tresta "Moszhilstroy", g. Moskva.
(Moscow--Housing)
(Socialist competition)

84255

S/076/60/034/009/021/022
B015/B056

5.4700 also 2209

AUTHORS: Kuznetsov, F. A., Rezhukhina, T. N., and Golubenko, A. N.

TITLE: Determination of the Formation Heat of Ce_2O_3 by the Method of Combustion in the Bomb Calorimeter

PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 9, p. 2129

TEXT: For the purpose of determining the formation enthalpy of Ce_2O_3 , the reaction heat of the reaction $\text{Ce}_2\text{O}_3 + 1/2 \text{O}_2 = 2 \text{CeO}_2$ was determined. The Ce_2O_3 was obtained by reduction of CeO_2 in a hydrogen current at 1250-1300°C. The reaction heat of this reaction was determined by the diathermic method by means of a calorimeter (volume of the bomb: 0.04 l), and the experimental results of Ce_2O_3 combustion are given in a table. After the necessary corrections had been made, the value $\Delta H_{298.2}^\circ = -85.43 \pm 0.26$ kcal/mole was obtained for the reaction, and, according to (Ref. 3), $\Delta H_{298.2}^\circ = -260.18 \pm 0.33$ kcal/mole is substituted for the

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84255

Determination of the Formation Heat of Ce_2O_3 by S/076/60/034/009/021/022
the Method of Combustion in the Bomb Calorimeter B015/B056

reaction $\text{Ce} + \text{O}_2 = \text{CeO}_2$, so that for the formation heat of Ce_2O_3 from the
elements $2 \text{Ce} + 3/2 \text{O}_2 = \text{Ce}_2\text{O}_3$ the value $\Delta H_{298.2}^0 = -434.93 \pm 0.99 \text{ kcal/mole}$
was obtained. There are 1 table and 5 references: 1 Soviet, 3 US, and 1
German.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova
(Moscow State University imeni M. V. Lomonosov)

SUBMITTED: May 16, 1960

Card 2/2

GOLUBENKO, A.N.; REZUKHINA, T.N.

Application of the hydrostatic suspension method to the study of
heterogeneous equilibria. Zhur. neorg. khim. 6 no.3:674-678 Mr 161.
(MIRA 14:3)

(Chemical equilibrium) (Reduction, Chemical)

AUTHOR Golubenko A N * Rezuikhina T N

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"APPROVED FOR RELEASE: 06/13/2000

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APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000515910005-5"

GOLUBENKO, A.N.; USTINOV, O.A.; REZUKHINA, T.N.

Thermodynamic properties of cobalt titanate. Zhur. fiz. khim.
39 no.5:1164-1167 My '65.
(MIRA 18:8)

1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova.

GOLUBENKO, A.N.; REZUKHINA, T.N.

Thermodynamic properties of nickel titanate. Zhur. fiz. khim.
39 no.6:1519-1521 Je '65. (MIRA 18:11)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.
Submitted June 19, 1964.

ACC NR: AT7004081 (N) SOURCE CODE: UR/3244/66/000/004/0097/0100

AUTHOR: Parkhomenko, V. D.; Ganz, S. N.; Golubenko, L. A.; Volodin, I. S.

ORG: Dnepropetrovsk Institute of Chemical Technology (Dnepropetrovskiy khimiko-tehnologicheskii institut)

TITLE: Linear expansion and thermal conductivity coefficients of fluoroplastic material

SOURCE: Dnepropetrovsk. Khimiko-tehnologicheskii institut. Khimicheskaya tekhnologiya, no. 4, 1966, 97-100

TOPIC TAGS: thermal conduction, thermal expansion, temperature coefficient, filler, linear expansion, fluoroplastic material

ABSTRACT: Expansion and thermal conductivity with BaSO₄, MoS₂, graphite, and coke used as fillers. It was shown that a very complex relationship exists between the linear expansion coefficient and the temperature, type and concentration of a filler. Generally, the increased film concentrations contribute toward lowering of the linear expansion coefficient. Thermal conductivity is determined by the filler.

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DDP86-00513R000515910

Golubenko, M.H.

4.

chem Substitution reactions of the α -halogen of chloromethyl-
dimethylchlorosilane and bis(chloromethyl)tetramethyl-
disiloxane. R. A. Abramov and M. A. Kozlov.
Reports of refluxing Me_2SiCl_2 were passed into a flask (with
reflux condenser) half-filled with activated carbon, and
into which Cl_2 was simultaneously introduced. When the
temp. of the refluxing liquid reached 100° , the reaction was
stopped, yielding from 217 g. Me_2SiCl_2 about 139 g. ClCH_2 -
 SiMe_2Cl (I), b.p. $113.5-14.2^\circ$. This (124 g. and 126 g.
 Ac_2O) heated slowly with distn. of the resulting Ac_2O gave
42.7 g. $\text{ClCH}_2\text{SiMe}_2\text{OAc}$, b.p. $42-5^\circ$, n_D^{20} 1.4345, d_4^{20} 1.0612
and 30 g. $\text{AcOCH}_2\text{SiMe}_2\text{OAc}$, b.p. $96-97^\circ$, n_D^{20} 1.4381, d_4^{20}
1.0620. H_2O (1.2 l.) slowly added to 42.7 g. I, after which
the mixt. treated with 0.5 l. satd. aq. NaCl , and the org.
layer sep'd. after 12 hrs. and washed with H_2O yielded 37 g.
 $\text{O}(\text{SiMe}_2\text{CH}_2\text{Cl})_2$ (II), b.p. 204° , n_D^{20} 1.4398, d_4^{20} 1.0681.
This (116 g.) and 102 g. AcONa heated with 204 g. AcOH 8
hrs. at $130-40^\circ$ yielded 97 g. $\text{O}(\text{SiMe}_2\text{CH}_2\text{OAc})_2$, b.p. $240-5^\circ$,
 n_D^{20} 1.4228, d_4^{20} 0.9981. From 260 g. I at $60-80^\circ$ and 142 g.
abs. EtOH after heating to $80-90^\circ$ eliminate HCl was ob-
tained 221 g. $\text{ClCH}_2\text{SiMe}_2\text{OEt}$, b.p. $131-2^\circ$, n_D^{20} 1.4185, d_4^{20}
0.9512. This (85 g.) heated with 160 g. PhNH_2 4 hrs. at
 $90-120^\circ$ gave, after cooling and filtration, 66.2 g. $\text{PhNH}-$
 $\text{CH}_2\text{SiMe}_2\text{OEt}$, b.p. $117-20^\circ$, n_D^{20} 1.5100, d_4^{20} 0.9656. Simi-
larly II and PhNH_2 gave a moderate yield of $\text{O}(\text{SiMe}_2-$
 $\text{CH}_2\text{NHPh})_2$, b.p. $188-92^\circ$, n_D^{20} 1.5304, d_4^{20} 1.0109.
G. M. Kozlov

GOLUBENKO, M. H.
ANDRIANOV, K.A.; GOLUBENKO, M. A.

Reaction of chlorine substitution by ~~amino~~ groups in dichloromethylchlorosilane and bis(chloromethyl) methylchlorosilane.
Dokl. AN SSSR 112 no.2:257-260 Ja '57. (MIRA 10:4)

1. Chlen-korrespondent AN SSSR (for Andrianov) 2. Vsesoyuznyy elektrotekhnicheskyy institut im. V. I. Lenina.
(Silane) (Chlorine compounds)

5. 500 (1)

69715

SOV/81-59-9-31418

Translation from: Referativnyy zhurnal. Khimiya, 1959, Nr 9, pp 248-249 (USSR)

AUTHORS: Andrianov, K.A., Sokolov, N.N., Golubenko, M.A., Shostenko, G.S., Yukina, L.N.

TITLE: Direct Synthesis of Alkyl- and Arylchlorosilanes¹

PERIODICAL: Tr. Vses. elektrotekhn. in-ta, 1958, Nr 62, pp 5-15

ABSTRACT: In the direct synthesis of methylchlorosilanes the best results were obtained with the molten Si-Cu contact mass [2 - 5% Cu, temperature 270°C, yield $(CH_3)_{4-n}SiX_n$ (I) 94%, content of I ($n = 2$) 36%]. Instead of pure Si the application of ferrosilicon is possible: at a Fe content of 7 and 24.2% the yield and the content of I ($n = 2$) is 85 and 31.7%, and 88 and 24.4, respectively. The reaction depends on the physical structure of the contact mass, the reactor design, the gas supply rate, the temperature, etc. The most efficient contact mass is prepared by pouring the Si-Cu melt into cold water. The introduction of Cu_2O (instead of Cu) into the contact mass increases the yield of I ($n = 3$). CuO is no catalyst. With an increase in the number of organic radicals the heat-resistance of organochlorosilanes decreases. The direct synthesis of ethylchlorosilanes (250 -

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Direct Synthesis of Alkyl- and Arylchlorosilanes

69715

SOV/81-59-9-31418

- 270°C) leads to $(C_2H_5)_2SiCl_2$ (II), yield 5 - 10%. The addition of Cr (4.2%) to the Si-Cu alloy increases the quantity of II to 24%. $SiCl_4$ is obtained from $CH_2 = CHCl$ (410 - 420°C) as principal product; the yields of $C_2H_3SiCl_3$ and $(C_2H_3)_2SiCl_2$ are 7.3 and 0.9%, respectively. At passing C_6H_5Cl through a Si-Cu alloy (420 - 430°C), activated by H_2SO_4 , $C_6H_5SiCl_3$ is obtained with a yield of 18 - 25%. The modes of the reactions of direct synthesis and the mechanism of the action of a copper catalyst are discussed.

G.M.

Card 2/2

88640

15.8340

S/110/61/000/001/001/023
E194/E455

AUTHORS: Andrianov, K.A., Corresponding Member AS USSR,
Golubenko, M.A., Engineer

TITLE: Cast Insulation Based on Epoxide Resins and
Polyorganosiloxanes

PERIODICAL: Vestnik elektropromyshlennosti, 1961, No.1, pp.1-3

TEXT: This article describes cast insulation which has been developed on the basis of epoxide resins and polyorganosiloxanes. Polyorganosiloxanes have good electrical and thermal but poor mechanical properties; they can, however, be combined with certain organic polymers to form block polymers. In the case of polyorganosiloxanes the reactive groups are hydroxyls and esters and in the epoxide resins they are epoxide and hydroxyl groups. Epoxide resin grade Э-37 (E-37) was selected as basis because besides having good casting properties, it has a long hardening time. Polyorganosiloxanes of various compositions and structures may be derived from silicon-organic monomers: methyl phenyl-dichlorsilane and dimethyldichlorsilane. The content of hydroxyl groups in the polyorganosiloxane is 1 to 3% and of ethoxyl groups from 1 to 6%. The epoxide resins are combined with polyorgano-
Card 1/4

X

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S/110/61/000/001/001/027
E194/E455

Cast Insulation Based on Epoxide Resins and Polyorganosiloxanes

siloxanes either in a solvent or in the fluid condition and the resulting compounds contain from 10 to 80% of polyorganosiloxanes. The resulting compounds are uniform transparent products ranging in colour from light yellow to dark brown. The compounds become liquid at 80 to 100°C and can be maintained at this temperature for a considerable time without change. Their method of use is simple and similar to that of epoxide compounds. Materials that can be used as hardeners for EK (EK) compounds are phthalic or maleic anhydrides, amines, polyalumino-organosiloxanes and others. The quantity of hardener depends on the content of epoxide groups in the compound and usually ranges from 5 to 20% by weight. The compounds are hardened at a temperature of 100 to 200°C, which usually takes several hours. Then the cast compounds are heat-treated at 150 to 200°C for 24 to 48 hours. This heat treatment improves the dielectric properties. The physical properties of the compounds depend on the content and structure of the polyorganosiloxanes. Mineral fillers may be used. The greater the content of polyorganosiloxanes the greater the plasticity. Shrinkage of EK compounds containing 20 to 30% of polyorgano-
Card 2/4

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S/110/61/000/001/001/023

E194/E455

Cast Insulation Based on Epoxide Resins and Polyorganosiloxanes

siloxanes is practically the same as that of epoxide resin compounds. If the polyorganosiloxane composition is further increased, the shrinkage increases to 3 to 5%. Compound EK-20 contains 30% polymethylphenylsiloxane and has the following characteristics:

Density g/cm² - 1.16 - 1.20

Specific impact strength kg.cm/cm² - 6 - 10

Tensile strength kg/cm² - 300 - 500

Bending strength kg/cm² - 600 - 800

Compressive strength kg/cm² - 600 - 800

Martens heat resistance °C - 60 - 65

Compound EK-20 was hardened with phthalic anhydride with subsequent heat-treatment. The electrical properties were determined on standard specimens of 0.9 to 1 mm thick. The electric strength ranged from 25 to 30 kV/mm at 20°C to 9 to 11 kV/mm at 250°C and the permittivity is about 4. The power factor ranges from 0.001 to 0.003 at 20°C to 0.03 to 0.08 at 130°C the resistivity at 20°C is 10¹⁵ and is practically unaltered after Card 3/4

88610
S/110/61/000/001/001/023
E194/F455

Cast Insulation Based on Epoxide Resins and Polyorganosiloxanes

five days in water. The dielectric properties mainly depend on those of the epoxide resin grade E-37 used in preparing the compounds. There was little increase in dielectric loss with voltage up to 35 kV. Compound EK-20 with quartz sand as filler had a power factor of 0.013 at 20°C and 0.040 at 130°C. After ageing at 200°C for 600 hours the power factor at 20°C rose from 0.0023 to 0.0032. A tropical humidity test of more than 500 hours has practically no effect on the electrical properties. Compound EK-20 has been used for impregnating and "potting" non-rotating components operating at temperatures ranging from -60 to +200°C. There are 2 figures, 5 tables and 4 references: 3 Soviet and 1 non-Soviet.

SUBMITTED: March 11, 1960

Card 4/4

5.3700 2209

28988

S/191/61/000/011/004/008
B110/B147

AUTHORS: Andrianov, K. A., Golubenko, M. A.

TITLE: Condensation of methyl-phenyl diethoxy silane with bivalent phenols

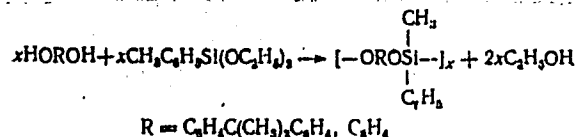
PERIODICAL: Plasticheskiye massy, no. 11, 1961, 21-22

TEXT: The authors studied the condensation of 27 g (0.127 moles) of methyl-phenyl diethoxy silane (I) (boiling point 60-62°C/2 mm Hg; $n_D^{20} = 1.4700$) with 28.5 g (0.125 moles) of 4,4'-dioxy-diphenyl propane (II) taking place at 150-180°C under separation of C_2H_5OH . At the beginning, the reaction proceeds quickly. It results in a decrease in the number of functional groups. Heating was carried out for 7 hr in an N_2 flow, and functional groups and viscosity were determined hourly by means of Pinkevich's viscosimeter (0.8 mm capillary). After final heating for 1 hr at 240-250°C, 39 g of a solid, transparent substance (%: Si = 7.15; OH = 1.11; OC_2H_5 = 2.45, MW = 1758) was obtained. ($C_{112}H_{116}O_{11}Si_5$, %: X

Card 1/3

Condensation of methyl-phenyl... 2898 S/191/61/000/011/004/008
B110/B147

Si = 7.92; OH = 0.96; OC₂H₅ = 2.53; MW = 1778). The determination of Si, hydroxyl and ethoxyl groups in the polymers permits to infer the following stepwise polycondensation:



In the case of equimolar amounts of the reaction products the molecular weight lies at about 1800. Condensation of 52.5 g (0.25 moles) of I with 27.5 g (0.25 moles) of hydroquinone (III) begins at 110°C and takes place during heating for 7 hr at 160-180°C and for 1 hr at 200-210°C in N₂ flow. Here, too, the initial rate with reduction of the functional groups is high. The molecular weight is 1500 at equimolecular ratio of the initial compounds, which corresponds to a polymer with six structural units, as proved by the Si, hydroxyl, and ethoxyl determination. 55 g a dark, viscous substance (%: Si = 11.32; OH = 1.21; OC₂H₅ = 3.42; MW = 1400).

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S/191/61/000/011/004/008

B110/B147

Condensation of methyl-phenyl...

was obtained ($C_{80}H_{78}O_{13}Si_6$, %: Si = 11.88; OH = 1.21; OC_2H_5 = 3.18; MW = 1416). The viscosity of the condensation products increases only slowly. After heating for 10-15 min at 240-250°C, the condensation product of I + III changes into a highly viscous polymer. The polymers obtained are soluble in toluene, benzene, chlorobenzene, and amyl acetate. They are being tested as modifying substances for epoxy resins. There are 3 figures and 7 references: 2 Soviet and 5 non-Soviet. The two references to English-language publications read as follows: US Pat. 2584342, 2584344, 2584351; C. A., 46, 4851 (1952); US Pat. 2628215 (1953).

X

Card 3/3

L 1798-66 EWT(m)/EPF(c)/EWP(j)/T/ETC(m) WW/RM
 ACCESSION NR: AP5024498

UR/0191/65/000/010/0008/0011
 678.643'42'5

AUTHOR: Khrustaleva, Ye. N.; Colubenko, M. A.

TITLE: Epoxy compound with improved heat resistance

29B

SOURCE: Plasticheskiye massy, no. 10, 1965, 8-11

TOPIC TAGS: epoxy plastic, heat resistant plastic, curing agent /EK 54

ABSTRACT: A new epoxy compound designated EK-54 has been developed which shows improved thermal shock resistance and more stable properties than conventional epoxy compounds. The compound is prepared from epoxy resins of various molecular weights (70 parts EDL resin and 30 parts ED-5 resin). The hardener used is endic anhydride (cis-3,6-endomethylene-1,2,3,6-tetrahydrophthalic anhydride); the accelerator is dimethylaniline, curing is for 3 hr at 120C. The filler is quartz powder with less than 0.02% iron. The idea of using epoxy resins of various molecular weights and with various epoxy group concentrations is to produce a polymer having an irregular network structure, i.e., a structure containing both regions of high and of low cross-linking density. It was expected that this structure would impart a certain elasticity to the polymer and therefore a greater stability of properties (in particular, improved thermal shock resistance). The lower molecular

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L 1798-66

ACCESSION NR: AP5024498

weight resin was also expected to improve casting properties. Comparative physico-mechanical tests show that EK-54 has lower impact strength, but higher heat resistance (Martens test), lower swelling in solvents, and higher thermal shock resistance than conventional epoxy resins (EDL, ED-6, ED-5). The presence in the quartz powder of more than 0.02% Fe considerably impairs the thermal stability of EK-54. Orig. art. has: 3 tables and 4 figures. [SM]

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: MT

NO REF SOV: 004

OTHER: 002

ATD PRESS: 4/12

mlb
Card 2/2.

GRIGOR'YEV, Ye.V.; PLATONOV, G.M.; GOLUBENKO, N.I.; LOVCHINOVSKIY, E.V.

Improvement of the drive of a vibrating, self-balancing, and
self-centering grizzly. Metallurg 10 no.5:14 My '65.
(MIRA 18:6)

1. Metallurgicheskiy zavod imeni Dzerzhinskogo i zavod-vtuz
imeni Arsenicheva.

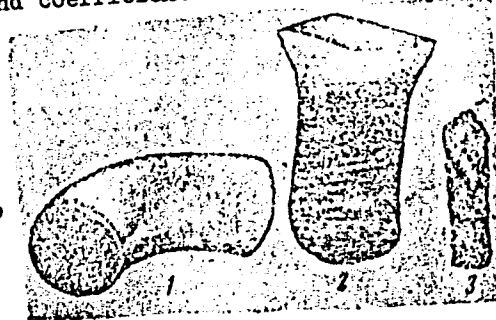
L 29682-66

ACC NR: AT6011849

$$-\frac{G_T \cdot 60 \cdot 10^6}{4 \sqrt{\pi}} \frac{c_T + \frac{\gamma_m \cdot Q_m}{\gamma_T \cdot \tau_{kr}}}{r^2} \frac{1}{\sqrt{\tau_{kr}}}$$

where b_{obr} is the heat accumulation coefficient, r is the radius of the lower part of the specimen, γ is thickness of casting, G_T and γ_T are the weight and specific weight of the porcelain insulation of the thermocouple that is immersed in the metal, c_T is the specific heat of porcelain, γ_m and Q_m are the specific heat and latent heat of crystallization of metal casting, τ_{kr} is the crystallization time of the metal, $\Delta_{kr} = (t_{kr} - t_\varphi)$ where t_{kr} is the crystallization temperature of the metal and t_φ and b_φ are the initial temperature and coefficient of heat accumulation of the mold material.

Fig. 1. Casting of alloy AL2 without and with the use of heated heads. 1 - casting, 2 - nonheated head, 3 - heated head.



Card 2/3

L 29682-66

ACC NR: AT6011849

The best results are obtained with exothermic sleeves having the following composition: Al-Mg alloy (50:50) 15%, manganese ore 40%, wood shavings 5%, refractory clay 35%, clay 5%, and binder, 6% above the total of 100%. It is concluded that the use of exothermic sleeves results in a saving of 50 to 60% of the liquid metal during casting operations. Orig. art. has: 8 tables, 13 figures, and 1 equation.

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 012/ OTH REF: 005

Cord 3/3 CC

IOFFE, L.; IL'INSKIY, N. (g. Vil'nyus); GOLUBENKO, V. (st. Staryy Oskol)

Your helper, friend and adviser. Sov. profsoiuzy 18 no. 8:7
'62. (MIRA 15:4)

1. Zamestitel' redaktora gazety "Za tyazhelcye mashinostroye-
niye", g. Sverdlovsk.
(Wall newspapers) (Journalism, Labor)

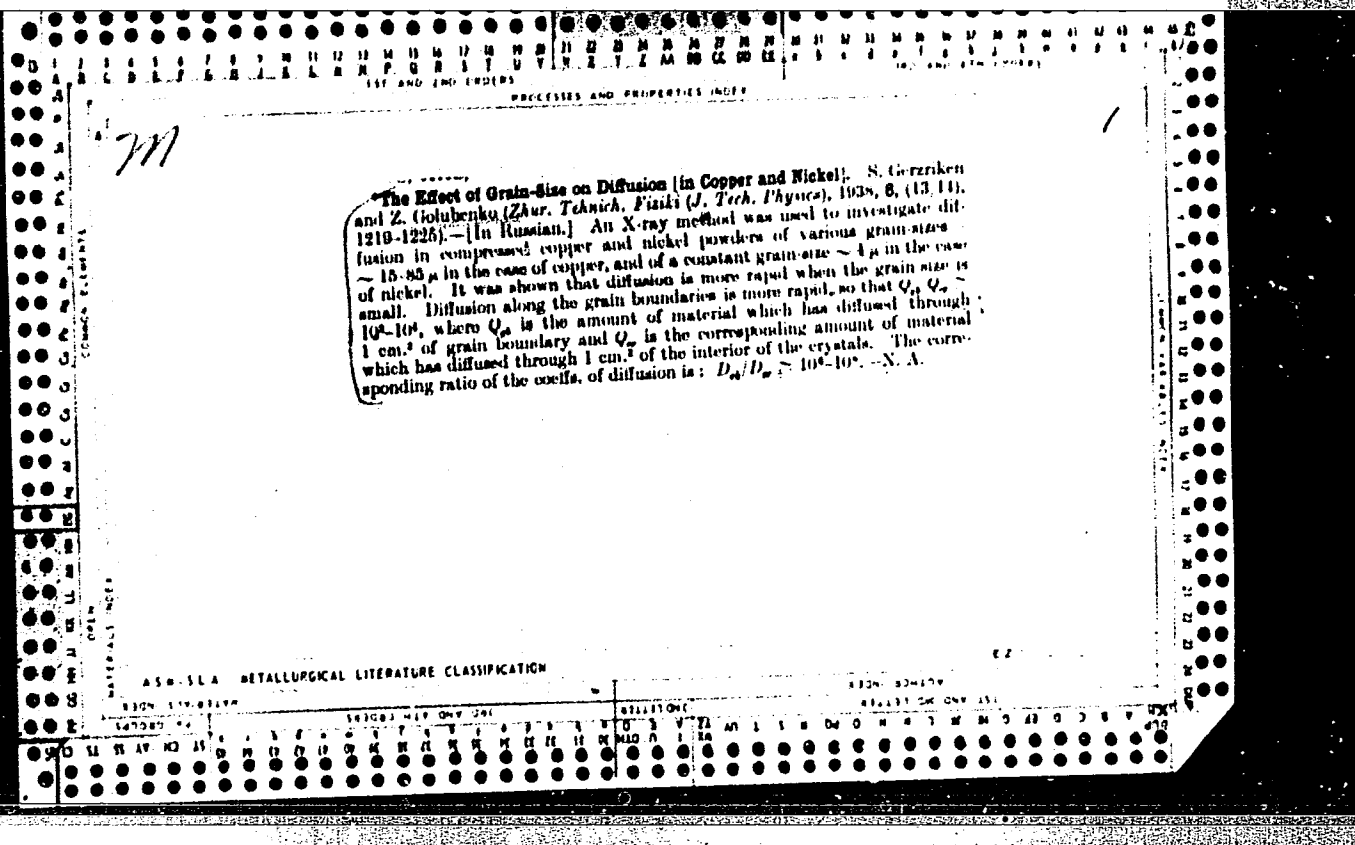
GOLUBENKO, V.; KALININ, N., pensioner (Moldavskaya SSR); ULANOV, B.,
~~traktorist~~ (Stavropol'skiy kray)

Readers relate, advise and criticize. Sov. profsoiuzy 19 no.6:
16-17 Mr '63. (MIRA 16:3)

1. Inspektor obshchestvennogo trgovogo otdela pri Staro-Oskol'skom
gorodskom sovete, Belgorodskaya obl. (for Golubenko).
(Labor and laboring classes)

BERTINOV, A.I., doktor tekhn.nauk, prof.; ANDREYEV, V.G., kand.tekhn.nauk;
GOLUBENKO, Ya.A., inzh.

Magnetic field distribution in brushless electrical machines with
externally short-circuited magnetic circuits. Elektrotehnika 36
no.10:8-11 0 '65. (MTA 18:10)



COMMON SUBJECTS

MATERIALS INDEX

1ST AND 2ND ORDERS PROCESSES AND PROPERTIES INDEX

COMMON SUBJECTS

MATERIALS INDEX

M

*Diffusion of Hydrogen Through Copper-Nickel Alloy. N. D. Gertzenko and Z. P. Golubenko (*Mem. Phys. Kiev*, 1939, 8, 67-71; *Brit. Chem. Abs.*, 1940, [A], 67).—[In Russian.] A solid solution of nickel in copper, obtained by heating a compressed 1:3 nickel-copper mixture at 700° C. in a vacuum, has a lattice constant a 3.590 Å., which falls to 3.577 Å. after exposure to hydrogen. The diffusion coeff. of hydrogen is $D = Ae^{-Q/RT}$, where A is a constant, and $Q = 35$ kg.-cal./gm.-mol. hydrogen, and represents the heat of diffusion.

[N.B.], 22, (2), 143-144).—[In English.] Experiments show the Hall constant of $AuCu_3$ to undergo a threefold change in the course of the transition of the alloy from the disordered to the ordered state.—N. B. V.

2

ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS										PROCESSES AND PROPERTIES INDEX									
COMMON SUBJECTS										MATERIALS INDEX									
1ST AND 2ND ORDERS										PROCESSES AND PROPERTIES INDEX									
COMMON SUBJECTS										MATERIALS INDEX									
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100

CA

Effect of deformation on the rate of zinc diffusion in α -brass. S. D. Gertsiken and Z. P. Golubenko (Acad. Sci., Ukrain. S.S.R., Kiev). *Izv. Akad. Nauk S.S.R. Inst. Obshch. i Neorg. Khim., Akad. Nauk S.S.R.* 16, No. 2, 167-73 (1946).—Specimens of α -brass were subjected to stretching, bending, rolling, and to deformation resulting from a difference in expansion of 2 metals (brass and nickel). The specimens were subjected to deformation *in vacuo* at 620-700°, the diffusion being detd. by volatilization of Zn. Stretching, bending, and rolling had a negligible effect on the rate of diffusion. Deformation caused by uneven expansion of brass and nickel in close contact increased the coeff. of diffusion of Zn from α -brass 2-5 times compared to nondeformed brass.

M. Hosh

GERTSRIKEN, S.D.; GONJURENKO, Z.P.

Effect of deformation on the rate of diffusion. Sbor. nauch.
rab. Lab. metallofiz. no. 1:148-158 '48. (MLRA 8:9)
(Deformations (Mechanics)) (Diffusion) (Solids)

YEREMENKO, V.N.

POLYAKOVA, V.M.

GOLUBENKO, Z.P.

"The Interaction of Titanium Carbide With Nickel", from the monograph
Questions on Power Metallurgy and the Strength of Materials, No III,
Institute of Metalloceramics and Special Alloys, Academy of Sciences
Ukrainian SSR, Kiev, 1956, 145 pages

Sum. I287

GOLUBENKO, Z. P.

USSR/ Physical Chemistry - Thermodynamics. Thermochemistry. B-8
Equilibrium. Physicochemical Analysis. Phase Transitions.

Abs Jour : Referat Zhur - Khimiya, No 3, 1957, 7478

Author : Yeremenko, V.N., Polyakova, V.M., and Golubenko, Z.P.

Inst : Academy of Sciences USSR

Title : Reaction of Titanium Carbide with Nickel

Orig Pub : Sb vopr. poroshkovoy metallurgii i prochnosti materialov
[Symposium on Questions on Powder Metallurgy and the
Strength of Materials], Vol 3, Kiev, AN SSSR, 1956,
62-72

Abstract : Thermic analysis, metallographic, and radiographic me-
thods were used in establishing the equilibrium diagram
for the system Ni-TiC (I) in the nickel-rich region.
The alloys of Ni with I give cooling curves of the eute-
ctic type ($E = 1280^{\circ}$ at 9.3 percent I). The solubility
of I in Ni in the solid state was determined. At the
eutectic temperature of 1280° the solubility attains 6.2

Card 1/2

- 105 -

GOLUBENKO, Z. P.

33752

S/021/62/000/002/007/010
D299/D304

18,1255 1530

AUTHORS: Yeremenko, V. N., Tret'yachenko, L. O. and Holubenko, Z.P.

TITLE: On the boundary of the σ -phase in a tantalum-vanadium system

PERIODICAL: Akademiya nauk UkrRSR. Dopovidi. no. 2, 1962, 192-194

TEXT: The tantalum-vanadium alloys were prepared by the method of Yeremenko et al. (Ref. 2: ZhNKh, 5, 2290, 1960). Then they were annealed and tempered at 4 different regimes, ranging from temperatures of 1000 to 1400°C, and lasting from 5 to 200 hours. The boundary of the σ -phase was determined metallographically. The microstructure was determined by means of various etchants, depending on the composition of the alloy. A table shows the phase composition of the alloys at various temperatures. Four types of microstructure are shown in figures. The first shows the structure of a homogeneous β -solid solution alloy; the grain boundaries are sharp and clean. Another figure shows the microstructure of the

Card 1/3

33752

S/021/62/000/002/007/010
D299/D304

On the boundary of ...

same alloy after low-temperature annealing; thereby small σ -phase formations are noted. Further, an alloy with a considerable amount of σ -phase is shown, and (lastly) the microstructure in the region of homogeneous σ -phase. The σ -phase has very great hardness. The microhardness, determined by means of the device $\Pi MT-3$ (PMT-3), of the σ -phase in alloys containing 32.0 and 41.5 atom% Ta, ranged between 1070 - 1260 kg/mm². The line digrams (of an X-ray picture) of a specimen containing 32.0 atom% Ta is shown. Nearly all the lines of the σ -phase were identified by the tetragonal lattice. Calculation of lattice parameters showed that the σ -phase in alloys containing 32.0 atm% Ta has parameters $a = 6.15$ kX and $c = 8.85$ kX. According to the data of W. Rostoker and A. Yamamoto ((Ref. 1: Trans. Amer. Soc. Metals, 46, 1136, 1954)), these parameters are $a = 6.104$ kX and $c = 8.833$ kX. A state diagram of the Ta-V system is shown, using data of Ref. 1 (Op.cit.) and the solidus-temperatures found in Ref. 2 (Op.cit.). There are 3 figures, 1 table and 3 references: 2 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows: W. Rostoker, A.

Card 2/3

33752

S/021/62/000/002/007/010
D299/D304

On the boundary of ...

Yamamoto, Trans. Amer. Soc. Metals, 46, 1136, 1954.

ASSOCIATION: Instytut metalokeramiky i spetssplaviv AN UkrRSR (Institute of Powder Metals and Special Alloys of the AS UkrRSR)

PRESENTED: by Academician I. M. Fedorchenko of the AS UkrRSR

SUBMITTED: July 15, 1961

X

Card 3/3

YEREMENKO, V.N. [I Eremenko, V.N.]; TRET'YACHENKO, L.A. [Tret'iachenko, L.O.];
GOLUBENKO, Z.P. [Golubenko, Z.P.]

Limits of the existence of the σ -phase in the tantalum-vanadium
system. Dop. AN URSR no.2:192-195 '62. (MIRA 15:2)

1. Institut metallokeramiki i spetsial'nykh splavov AN USSR.
Predstavleno akademikom AN USSR I.M.Fedorchenko.
(Tantalum—Vanadium alloys)

GOLUBENKOV, B.N. (Sverdlovsk)

Heat convection in a rotating round tube in case of a constant
temperature gradient. Prikl.mat. i mekh. 21 no.3:439-440 My-Je '57.
(MIRA 10:10)

(Heat--Convection)

GOLUBENKOV, B.N. (Moskva)

Heat convection in a rotating round tube associated with a
constant temperature gradient (compressible liquid). Prikl.
mat. i mekh. 22 no.6:840-841 N-D '58. (MIRA 11:12)
(Heat--Convection)

KOVALEVSKIY, V.P.; CHERNOZHUKOV, K.N.; GOLUBENKOV, V.I.

Exchange of geographical delegations between the U.S.A. and the
U.S.S.R. Izv. AN SSSR. Ser. geog. no.6:150-153 N-D '61. (MIRA 14:12)
(United States--Relations (General) with Russia)
(Russia--Relations (General) with the United States)
(Geography)

GOLUBENKOV, V.N.

SUBJECT USSR / PHYSICS CARD 1 / 2 PA - 1446
 AUTHOR GOLUBENKOV, V.N., SMORODINSKIY, J.A.A.
 TITLE The LAGRANGIAN for the Systems of Uniform Charged Particles.
 PERIODICAL Zhurn. eksp. i teor. fis, 31, fasc. 2, 330-330 (1956)
 Issued: 10 / 1956 reviewed: 10 / 1956

According to C. DARWIN, Phil. Mag. 39, 537, 1920 it is possible to write down the LAGRANGIAN for a system of charged particles with an accuracy extending up to the terms of second order with respect to the ratio (velocity of particles / velocity of light). Here attention is drawn to a possibility of determining the LAGRANGIAN for a system of uniform particles in higher approximation. In a system of uniform particles (or more accurately: having the same ratio between charge and mass) radiation is proportional not to the third but to the fifth power of v/c . Therefore the LAGRANGIAN can be written down for such a system up to terms v^4/c^4 , and the easiest method of computation is that described in the book by LANDAU-LIFSHIC.

The terms of the third order in the LAGRANGIAN are equal to zero. Computation of the terms of the fourth order leads to the following additional expression added to the LAGRANGIAN of the second order:

$$L^{(4)} = - \sum_a \frac{m_a v_a^6}{16c^4} + \frac{e^2}{8c^4} \sum_{b > a} \frac{1}{R_{ab}} \left\{ 2(\vec{v}_a \vec{v}_b)^2 - v_a^2 v_b^2 + (\vec{n} \vec{v}_a)^2 v_b^2 + (\vec{n} \vec{v}_b)^2 v_a^2 - \right. \\ \left. - 3(\vec{n} \vec{v}_a)^2 (\vec{n} \vec{v}_b)^2 \right\} + \frac{e^2}{8c^4} \sum_{b > a} \left\{ 2(\vec{n} \vec{v}_a)(\vec{v}_a \dot{v}_a) - 2(\vec{n} \vec{v}_b)(\vec{v}_b \dot{v}_a) - \right.$$

Zurn.eksp.i teor.fiz, 31, fasc.2, 330-330 (1956) CARD 2 / 2 PA - 1446

$$-v_a^2(\vec{n}\vec{v}_b) + v_b^2(\vec{n}\vec{v}_a) + (\vec{n}\vec{v}_a)^2 + (\vec{n}\vec{v}_b)^2 - (\vec{n}\vec{v}_b)^2(\vec{n}\vec{v}_a) - 3R_{ab}(\vec{n}\vec{v}_a + R_{ab}(\vec{n}\vec{v}_b)(\vec{n}\vec{v}_a))$$

Here \vec{n} denotes the unit vector of the direction R_{ab} . In the course of the process of computation the expressions representing the total derivation with respect to time were omitted. In accordance with the equation of motion obtained by the total neglect of retarding potentials (i.e. from the LAGRANGIAN of zero-th approximation), accelerations may here be expressed by the coordinates and velocities of the charges. In the case of the most simple example of two charges the following is therefore true: $\vec{v}_1 = (e^2/m)\vec{n}/R^2$; $\vec{v}_2 = - (e^2/m)\vec{n}/R^2$. After insertion into the

above formula it follows that:

$$L^{(4)} = -mv_1^6/16c^4 - mv_2^6/16c^4 + (e^2/8c^4) \left\{ (1/R) [2(\vec{v}_1\vec{v}_2)^2 - v_1^2v_2^2 + (\vec{n}\vec{v}_1)^2v_2^2 + (\vec{n}\vec{v}_2)^2v_1^2 - 3(\vec{n}\vec{v}_1)^2(\vec{n}\vec{v}_2)^2] + (3e^2/m) [(\vec{n}\vec{v}_1)^3 + (\vec{n}\vec{v}_2)^3] - (e^2/m)(v_1^2 + v_2^2) + 2e^4/m^2R^3 \right\}. \text{ This LAGRANGIAN}$$

of 2 uniform charges, which is accurate up to the fourth order, can be used for the investigation of relativistic corrections on the occasion of the scattering of fast protons and for the generalization of BREIT'S well-known formula for the interaction between two electrons. BREIT'S formula was computed by MAKSIMOV in the fourth order, but the results are too voluminous to be mentioned here. The above is a slightly abridged translation of this short report.

INSTITUTION:

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000515910005-5

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000515910005-5"

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000515910005-5

~~CONFIDENTIAL~~ ~~SECRET~~ ~~TOP SECRET~~

V. I. Gorbunov

1957

CONFIDENTIAL

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000515910005-5"

GOLUBENKOV, V.N.

Obtaining a flat field of energy release in a reactor with a
uniform charge. Inzh.-fiz. zhur. 6 no.9:52-56 S '63.
(MIRA 16:8)

BOCATYREV, R.T.; VORONOV, Yu.A.; GOLUBENKOV, V.S.; GULYAYEV, P.I.;
SHLIPPENBAKH, N.Ya.

Parabiotic nature of the refractory phase of a single giant nerve
fiber in a squid. Vest. LGU 19 no.3:163-167 '64. (MIRA 17:3)

DECTYAREV, L.S.; GANYUK, L.N.; ~~GOLUBENKOVA, A.M.~~; BRODSKIY, A.I.

Electron paramagnetic resonance spectra and the transmission
of the influence of substituents in anion radicals of para-
nitrodiphenyls. Dokl. AN SSSR 157 no.6:1406-1409 Ag '64.
(MIRA 17:9)

1. Institut fizicheskoy khimii im. L.V. Piserzhetskogo
AN UkrSSSR. 2. Chlen-korrespondent AN SSSR (for Brodskiy).

GOLUBENKOVA, L.I.

236/103 4 ③ 678.5

Mechanism of Hardening of PF
Resins

Dokl. Akad. Nauk.
93(2), 311-314
1953

G.L. Slonimskii, V.A. Kargin,
L.I. Golubenkova

U.S.S.R.

Index
Aeronautics
March 1954
Plastics

Sci. Res. Inst. Plastics and
Phys.-Chem. Inst. in Karpov

The effect of degree of condensation and applied compressive stress on the vitrification temperature and true viscosity of resols, and on their high deformability shows them to be composed of rigid chains of low M.W., which increases somewhat during hardening. The incomplete reversibility of the change of viscosity under load indicates that compression can promote hardening. Resitol can be very considerably and reversibly deformed though recovery is often slow. The behaviour of resitol and its gels in contact with various solvents indicates them to have a rather open cross-linked structure, whose bonds have a certain lability around 100°C since the resins dissolve in solvents on heating and the solutions gel on standing. Fine particulate resitols dissolve completely whereas coarser material does not, showing that dissolution and further condensation are concurrent processes. Resites also have a spatial structure, mainly held together by labile bonds, but with small proportion of stronger ones (high-elasticity at high temperatures, and insolubility). The heat of formation of the labile aggregates is deduced from the variation of the equilibrium elasticity modulus with temperature (120-200°C) to be 6.0 k.cal/mole. (Boltzmann constant) ✓ 7-54

GOLUBEIKOVA, L. I.

"An Investigation of the Process of Hardening of Phenol-Formaldehyde Resol Resins." Cand Chem Sci, Sci Res Physico-chemical Inst imeni L. Ya. Karpov, 22 Nov 54. (VM, 11 Nov 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (11)

SO: Sum. No. 521, 2 Jun 55

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000515910005-5

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000515910005-5"

"APPROVED FOR RELEASE: 06/13/2000

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CIA-RDP86-00513R000515910005-5

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000515910005-5"

GOLUBENKOVA, L.I., KOVARSKAYA, B. M., AKOTIN, M. N. and SLAMENINSKIY, G.

"Epoxide Resins and Thermomechanical properties," a paper presented at the 9th Congress on the Chemistry and Physics of High Polymers, 20 Jan-2 Feb 57, Moscow, Plastics Research Inst.

B-3,004,395

GOLUBENKOVA, L. I.

"A Mechanical Method for the Production of New Types of Polymers," by V. A. Kargin, B. M. Kovarskaya, L. I. Golubenkova, M. A. Akutin, and G. L. Slonimskiy, Khimicheskaya Promyshlennost', No 2, Mar 57, pp 77-79

Equipment similar to rubber masticators has been designed for breaking down plastics by the exertion of mechanical force, so that the fractional parts of chain molecules which are then formed and which possess the properties of free radicals may react with other chain molecules or parts of chain molecules, forming block polymers, or combine with monomers, forming grafted polymers. The equipment in question consists of two circular corrugated plates between which the material is triturated when the lower plate is rotated against the upper plate that remains stationary. Two different types of plates are described: one has a rectangular groove with the contour of an Archimedes spiral and a depth gradient and the other a groove which possesses the same contour but exhibits a uniform depth and is cut in such a manner that a ridge with a profile corresponding to that of a Whitworth screw winding results.

54M-1391

802402707, L.I.

The first type of plate was found to be best suited for the copolymerization of low-molecular brittle resins with elastomers and the second for combining different types of elastomers with each other. By applying the method of mechanical disintegration, block polymers representing combinations in different proportions of nitrile rubber with phenol-formaldehyde novolacs, epoxy-resins, and refined coal-tar pitch were obtained. The time required for the experimental preparation of the block polymers was 4-5 minutes. Samples weighing 10-20 g were used, and the mechanical disintegration was carried out in an atmosphere of inert gas.

The authors conclude on the basis of the results described by them that the mechanical method of producing block polymers and grafted polymers is superior to chemical methods. They add that an apparatus for the continuous production of block polymers and grafted polymers by the mechanical method is being developed at the Scientific Research Institute of Plastics, and that the availability of this apparatus will make possible the industrial production of such polymers by the method described.

SUM. 1391

GOLUBENKOVA, L.I.

The authors of the article explain the significance of the work on block polymers as follows:

"At present requirements of a complex nature are put in various branches of the industry to products made of high-molecular compounds. These requirements comprise superior heat stability, improved mechanical and dielectric characteristics, stability to the action of water, chemical stability, retention of the original characteristics after prolonged use of the products, and stability at low temperatures combined with a resistance to the action of gasoline and oil. However, none of the available types of polymers can completely satisfy all the requirements mentioned above. For that reason it has become necessary to combine different types of polymers in such a manner that the materials resulting from their interaction will possess all the desired properties." (U)

54M-1391

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000515910005-5

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000515910005-5"

GOLUBENKOVA, L.I.

KARGIN, V.A., akademik; KOVARSKAYA, B.M.; GOLUBENKOVA, L.I.; AKUTIN, M.S.;
SLONIMSKIY, G.L.

Block-copolymer from phenol-formaldehyde resins and nitrile
rubber. Dokl. AN SSSR 112 no.3:485-486 Ja '57. (MLRA 10:4)

1. Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy
institut plasticheskikh mass.
(Nitrile rubbers) (Phenol condensation products)

GOLUBENKOVA, L. I.

69-20-1-5/20

AUTHORS: Golubenkova, L.I., Kovarskaya, B.M., Akutin, M.S., Slonimskiy, G.L.

TITLE: Thermomechanical Investigation of Epoxide Resins (Termomekhanicheskoye issledovaniye epoksidnykh smol)

PERIODICAL: Kolloidnyy Zhurnal, 1958, Vol. XX, # 1, pp 34-37 (USSR)

ABSTRACT:

Epoxide resins may be either thermoplastic or thermoreactive, depending on the initial diphenyl propane and epichlorohydrine components. Thermoreactivity begins at a molar ratio of 1 : 1.5 of the initial components and at a further decrease of the epichlorohydrine content. The thermomechanical curves of the initial resins were obtained on a dynamometric scale. The solidified specimens were measured on a consistometer. Epoxide resins are low-molecular, i.e. they pass from the vitrified condition into a viscous-fluid one. The vitrification temperature varies between 5-50°C. Solidified resins are prepared by using a hardening agent, polyethylenepolyamine, for 30-45 days. The reduction of the epichlorohydrine content to a ratio of 1 : 1.2 and a 10-hour heating at 200°C produces the resin type ED-15, which is elastic at increased temperatures. Resins with lower numbers of epoxide groups are more elastic

Card 1/2

GOLUBENKOVA, L.I.; KOVARSKAYA, B.M.; LEVANTOVSKAYA, I.I.; AKUTIN, M.S.

Mechanism of the hardening of epoxy resins with amines. Vysokom.
soed. 1 no.1:103-109 Ja '59. (MIRA 12:9)

1. Nauchno-issledovatel'skiy i proyektnyy institut plasticheskikh
mass.

(Resins, Synthetic) (Amines)

GOLUBENKOVA, L.I.; KOVARSKAYA, B.M.; AKUTIN, M.S.

Thermomechanical investigation of epoxy resins. Vysokom.sped.
1 no.1:109-113 Ja '59. (MIRA 12:9)

1. Nauchno-issledovatel'skiy i proyektnyy institut plasticheskikh
mass.

(Resins, Synthetic)

KOVARSKAYA, B.M.; GOLUBENKOVA, L.I.; AKUTIN, M.S.; LEVANTOVSKAYA, I.I.

Preparation of some block polymers and investigation of their properties.
Vysokom.sped. 1 no.7:1042-1047 J1 '59. (MIRA 12:11)

1. Nauchno-issledovatel'skiy institut plasticheskikh mass.
(Polymers)

NEYMAN, M.B.; GOLUBENKOVA, L.I.; KOVARSKAYA, B.M.; STRIZHKOVA, A.S.;
LEVANTOVSKAYA, I.I.; AKUTIN, M.S.; MOISEYEV, V.D.

Thermal degradation of condensation resins. Part 1: Thermal
degradation of epoxide resins. Vysokom.sood. 1 no.10:
1531-1537 0 '59. (MIRA 13:3)

1. Nauchno-issledovatel'skiy institut plastmass, Moskva.
(Resins, Synthetic)

GOLUBENKOVA, L. I.

PHASE I BOOK EXPLOITATION
SOV/1984
International symposium on macromolecular chemistry. Moscow, 1960.

Mezhdunarodnyy simpozium po makromolekulyarnoy khimii SSSR, Moskva, 11-18 iyunya 1960 g.; doklady i avtoreferaty. Sektsiya III. (International Symposium on Macromolecular Chemistry Held in Moscow, June 11-18, 1960; Papers and Summaries) Section III. [Moscow, Izd-vo AN SSSR, 1960] 469 p. 55,000 copies printed.

Tech. Ed.: P. S. Kashina.

Sponsoring Agency: The International Union of Pure and Applied Chemistry. Commission on Macromolecular Chemistry.

PURPOSE: This book is intended for chemists interested in polymerization reactions and the synthesis of high molecular compounds.

COVERAGE: This is Section III of a multivolume work containing papers on macromolecular chemistry. The articles in general deal with the kinetics of polymerization reactions, the synthesis of special-purpose polymers, e.g., ion exchange resins, semiconductor materials, etc., methods of catalyzing polymerization reactions, properties and chemical interactions of high molecular materials, and the effects of various factors on polymerization and the degradation of high molecular compounds. No personalities are mentioned. References given follow the articles.

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GOLUBENKOVA, L.I.; SHABADASH, A.N.; NIKONOVA, S.N.; AKUTIN, M.S.

Grafting of polymers to solid surfaces. Part 1: Study
of the interaction of organosilicon compounds with glass
based on infrared absorption spectra. Vysokom.soed.
4 no.9:1354-1360 S '62. (MIRA 15:11)

1. Nauchno-issledovatel'skiy institut plasticheskikh
mass.

(Glass)

(Silicon organic compounds)

GOLUBENKOVA, L.I.; DEMEKHINA, Ye.M.

Adhesion of epoxy resins to glass wool. Plast. massy no.10:35-36
'65. (MIRA 18:10)

NIKONOVA, S.N.; GOLUBENKOVA, L.I.; SHABADASH, A.N.; AKUTIN, M.S.

Reaction of organosilicon compounds with glass fibers. Plast.
massy no.2:27-29 '66. (MIRA 19:2)

1. Submitted Jan. 12, 1965.

L 22001-66 EWT(m)/ENP(v)/ENP(j)/T/ETC(m)-6 IJP(c) WW/RM

ACCESSION NR: AP5024505

UR/0191/65/000/010/0035/0036

678.643'42'5.01:539.612:666.189.211

AUTHOR: Golubenkova, L. I.; Demekhina, Ye. M.

TITLE: Adhesion of epoxy resins to glass cloth

SOURCE: Plasticheskiye massy, no. 10, 1966, 35-36

TOPIC TAGS: fiberglass, glass cloth, adhesion, epoxy plastic, heat resistance, resin/ED-5 resin, TS 8-3-250 glass cloth

ABSTRACT: The adhesion of epoxy resins to glass cloth was examined in this study using ED-5 resin and TS 8/3-250 glass cloth lubricated with paraffin. Adhesion of the resin to the cloth depends on curing conditions and the amount of curing agent in the adhesive. The resin-glass bonding was stronger with elevated temperature cures (160C for 1 hour) than with a 24 hour room temperature cure. Curing of the epoxy predominated as the amount of polyethylenepolyamine curing agent was increased from 8 to 15% on the weight of the resin. Reaction between the epoxide group and the surface of the glass cloth was enhanced and bond strength was increased as the amount of curing agent was reduced to about 4%.

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Below this the cohesive strength of the resin is reduced, leading to rupture. Tests were run using ED-5 with different amount of resin DEG-1 based on diethylene glycol and epichlorohydrin, using triethanolamine titanate as the curing agent. Resin-glass bond strength increased as DEG-1 was increased to 50%. However, the strength of the fiberglass subjected to static flex testing decreased as the amount of DEG-1 was increased. Preliminary coating of glass cloth with resin with subsequent application of a second coat of resin reduced the strength of the fiberglass in comparison to fiberglass made by the customary one-application method. The increase in the heat resistance of fiberglass based on epoxy resins is associated with the reaction of the resin with the glass surface. Orig. art. has 3 figures

ASSOCIATION: None

SUBMITTED: 00

ENCL: 00

SUB CODE: //

NR REF SOV: 008

OTHER: 008

Card 2/2 BK

L 14514-66 ENT(m)/T/ENF(j)/ETC(m) NW/RY
ACC NR: AP6005950 (A) SOURCE CODE: UR/0191/66/000/002/0027/0029

AUTHOR: Nikonova, S. N.; Golubenkova, L. I.; Shabadash, A. N.; Akutin, M. S. 28

ORG: none B

TITLE: Reaction of organosilicon compounds with glass fiber

SOURCE: Plasticheskiye massy, no. 2, 1966, 27-29

TOPIC TAGS: glass fiber, organosilicon compound grafting, coupling agent

ABSTRACT: A study has been made of the reaction of organosilicon compounds with glass fiber used in the manufacture of glass-reinforced plastics. An IR-spectroscopic method developed by the authors and involving immersion of the fiber in a special liquid, whose refractive index approaches that of glass, was used for direct identification of groups of organosilicon compounds grafted on the glass surface. The experiments were conducted with alkali and alkali-free glass fibers. The fiber was treated for 2 hr with the organosilicon compound or its organic analog. The untreated portion of the coupling agent was then removed with a polar or trimethylsilanol (II) resulted in the grafting of trimethylsilyl groups on the glass surface. The degree of grafting was higher when the glass was treated with I. Weak alkalis removed some of the trimethylsilyl groups by leaching the glass. Organosilicon compounds containing no reactive groups, trimethylchloromethane, and tri-

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ACC NR: AP6005950

methylecarbinol did not react with the glass fiber surface. Orig. art. has: 3 fig-
ures. [BO]

SUB CODE: 11/ SUBM DATE: 12Jan65/ ORIG REF: 007/ OTH REF: 004/ ATD PRESS:

4199

Card 2/2

L 39719-66 EWT(m)/EMF(j)/T/EWP(v) IJP(c) RM/RWA/DD-2
ACC NR: AP6007970 SOURCE CODE: UR/0191/66/000/003/0045/0047

AUTHOR: Nikonova, S. M.; Golubenková, L. I.; Shabadash, A. N.; Akutin, M. S. 19

ORG: none

TITLE: Reaction of dressing agent GVS-9 with binding agent FN-1

SOURCE: Plasticheskiye massy, no. 3, 1966, 45-47

TOPIC TAGS: organosilicon compound, polyester plastic, adhesion, spectrographic analysis

ABSTRACT: The author studied the nature of bonds formed between the organosilicon dressing GVS-9 and the acid polyester resin FN-1, which was obtained from diethylene-glycol and maleic and phthalic anhydrides in a 1:1;0.5 ratio. A 50% aqueous solution of GVS-9 (here the ester is converted into $\text{CH}_2\text{CHSi}(\text{OH})_3$) was heated for 1 hr at 140C until an infusible and insoluble product formed. The product obtained was separated, powdered, and mixed with polyester resin FN-1. One part of the mixture was kept for 2 hr at room temperature and the second part at 140C. To prevent oxidation, the mixture was heated in a N_2 atmosphere. The samples were washed with acetone in a Soxhlet apparatus for 6 hr and subsequently compressed to tablets with KBr for an infrared spectroscopic study. The spectra of the thermally hydrolyzed GVS-9 solutions and of the mixture of GVS-9 with FN-1 resin, which were processed at room temperature,

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ACC NR: AP6007970

were identical. At room temperature, the dressing agent did not react with the PN-1 resin, and the nonbond resin was subsequently washed out with acetone. The samples of PN-1 resin treated with GVS-9 at 1400 had a 1725 cm^{-1} band, corresponding to the carbonyl group of the resin. The intensity of the 1600 cm^{-1} , corresponding to the vinyl group of GVS-9, decreased. A study was made of the effect of a GVS-9 dressing of PN-1 resin on the resin's adhesion to a fiberglass thread containing 58% SiO_2 , 12% SiO , 14% $\text{Al}_2\text{O}_3 + \text{Fe}_2\text{O}_3$, and 12% B_2O_3 , and 4% MgO . Fine threads of fiberglass (10-15 μ) were treated with 5% aqueous solution of GVS-9 for 10-15 minutes, dried in air, then kept for 30 minutes at 1400. Dressed threads were subsequently treated with 67% PN-1 resin in a styrene solution. This reaction was performed either in hot or in cold solution with a subsequent heating. Dressing of glass fibers with GVS-9 increased markedly the adhesion of the PN-1 resin to their surfaces, especially when treated in a hot solution. The strength of resin-to-fiberglass bond was 382.5 or 307.5 kg/cm^2 with hot or cold solution treatment respectively. Orig. art. has: 1 fig. and 1 table.

SUB CODE: 07, 11/SUBM DATE: 12Jan65/ ORIG REF: 007/ OTH REF: 004

Card 2/2 $\frac{1}{5}$

VANKHAREN, V.D.; CHISTYAKOVA, A.M.; GOLUBENKOVA, M.D.

Hygienic investigation of the nutrition of the Donets coal
basin miners underground. Vop. pit. 24 no.1:28-31 Ja-F '65.

(MIRA 18:9)

1. Kafedra gigiyeny pitaniya (zav., dotsent A.M. Chistyakova)
Donetskogo meditsinskogo instituta i Gorlovskoy gorodskoy
sanitarno-epidemiologicheskoy stantsii.

KONOVALOV, S.A.; GOLUBENKOVA, N.I.; BORODKINA, V.V.

Use of phosphorus and transformation of its various forms
in yeasts during fermentation, Trudy TSNIISP no. 8:11-23
'59. (MIRA 14:1)
(Phosphorus) (Yeast) (Fermentation)